REMARKS/ARGUMENTS

Claims 1-36 are currently pending in this application.

Claim Rejections - 35 USC § 103

Claims 23, 26, 27, 31, 32 and 34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,308,062 to Chien et al. (hereinafter Chien), in view of U.S. Patent No. 6,636,724 to Pillekamp et al. (hereinafter Pillekamp). Claims 1, 6, 7, 9, 10, 12, 18, 19, 20, 21, 25 and 35 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chien and Pillekamp, further in view of U.S. Patent No. 6,373,902 to Park et al. (hereinafter Park). Claims 28 and 29 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chien and Pillekamp, further in view of U.S. Patent No. 5,768,695 to Fischer et al. (hereinafter Fischer). Claims 28 and 29 are rejected under 35 U.S.C. §103 (a) as being unpatentable over Chien and Pillkeamp, further in view of Fischer. Claim 30 is rejected under 35 U.S.C. § 103(a) as being unpatentable Chien, Pillekamp and Fischer, further in view of U.S. Patent No. 6,532,533 to Bhandal (hereinafter Bhandal). Claims 3, 4, 14, and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chien, Pillekamp, Park, further in view of Fischer. Claims 5 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Chien, Pillekamp, Park, and Fischer, further in view of Bhandal.

Regarding claim 23, the Examiner alleges that Chien teaches "a programmable radio interface processor (RIP) 65 coupled to the serial bus processor; and a plurality of lookup tables indexed by data received from the analog radio module wherein data values retrieved from the lookup tables may be used to generate processed data for controlling the digital module." The applicants respectfully submit that Chein fails to teach a plurality of lookup tables. Chien merely provides "a microprocessor 140 controls the DECT radio module 138 via a burst mode controller 145. The burst mode controller 145 implements the DECT physical and partial MAC layer processing." Chien Col. 4, Lines 54-57. Additionally, the Applicants respectfully submit that Chien merely provides "associated static memory 150 for temporary storage purposes, and a non-volatile memory 155 for storing microprocessor firmware." Chien Col 4. Lines 57-60. The presence of memory in both static and non-static form does not suggest the presence of lookup tables indexed by data. The storage memory also fails to teach how data values retrieved from the lookup tables may be used to generate processed data for controlling the digital module. Further, there is no suggestion in Chien that lookup tables may be used or are preferable in controlling the digital module.

The Examiner also alleges Pillekamp teaches the use of "registers inside the radio interface device (or burst mode controller) in order to save the control information of the other units." In Pillekamp, "the transmission power in the radio

part is initiated via corresponding ports or registers..." Pillekamp, Col. 2, Lines 29-31. Pillekamp teaches away from including the registers within the radio part by using corresponding ports or registers located elsewhere.

Further regarding claim 23, the Examiner, citing Santos, alleges that it would have been obvious to one of skill in the art to use "memory-mapped" registers as they are the fastest registers. However, the Applicants respectfully submit that the advantage gained in speed is also not disclosed in Santos. In fact, a close reading of Santos shows that the speed advantage is actually achieved by the processor for memory accesses and not the system of memory-mapped registers. "An advantage of storing information in the system memory-mapped registers is that the processor accesses these memory mapped registers with memory accesses, its fastest mechanism for data retrieval." Santos, Col. 24, Lines 12-14 (Emphasis Added). Accordingly, the Applicants respectfully submit that the Examiner has improperly inferred the relative speed of memory-mapped registers from Santos, and the rejection of claim 23 should be withdrawn.

Therefore, Chien, Pillekamp, and Santos, either alone or in combination, fail to teach or suggest lookup tables indexed by data from the analog radio module wherein data values retrieved from the lookup tables may be used to generate processed data for controlling the digital module. Claims 25-32 are dependent upon

claim 23, and the Applicants believe these claims are allowable over the cited references of record for the same reasons provided above.

Regarding claims 1 and 12, the Applicants respectfully recall the argument above related to Chien and the absence of a "plurality of lookup tables." The Examiner further alleges that Park teaches "lookup tables are programmed with data so as to compensate for one or more nonlinearities which may be present in the analog radio module." Park discloses a device for linearizing a transmitter in a digital radio communication system. Although, Park discloses predistortion lookup tables, the lookup tables in Park fail to disclose the indexing scheme as disclosed in claim 1 and 12. The lookup tables in Park merely reads and outputs predistortion filter coefficient as disclosed in column 7, lines 52-65:

> The I-channel lookup table **351** stores the predistortion values determined by measuring in advance the distortion caused by the I-channel data and the changes of the transmission power and the surrounding temperature of the transmitter. Similarly, the Q-channel lookup table **353** stores the predistortion values determined by measuring in advance the distortion caused by the Q-channel data and the changes of the transmission power and the surrounding temperature of the transmitter. The I-channel lookup table **351** reads and outputs the I-channel predistortion filter coefficient IPDD according to the I-channel address IADDR. Similarly, the Q-channel lookup table **353** reads and outputs the Q-channel predistortion filter coefficient QPDD according to the Q-channel address QADDR.

In contrast, the lookup tables of the present application are indexed via at least one TPC word, and an AGC word as disclosed in paragraphs [0022] and [0023] of the current application. Moreover, Park fails to disclose using data values

retrieved from the lookup tables to generate processed data for controlling the digital module. Rather, Park discloses the filter coefficient generator generating filter coefficients IFC and QFC for controlling the filter coefficients for the I-channel and Q-channels, respectively, according to the predistortion data IPDD and QPDD received from the memory (col. 5, lines 30-36).

Therefore, Chien, Pillekamp and Park, either alone or in combination, fail to teach or suggest lookup tables indexed by data from the analog radio module Claims 3-7 and 9-10 are dependent upon claim 1, and the Applicants believe these claims are allowable over the cited references of record for the same reasons provided above.

Based on the arguments presented above, withdrawal of the 35 U.S.C. § 103(a) rejection of claims 1, 3- 7, 9, 10, 12, 15, 16, 18-21, 23, 25-32, 34 and 35 is respectfully requested.

Conclusion

If the Examiner believes that any additional minor formal matters need to be addressed in order to place this application in condition for allowance, or that a telephonic interview will help to materially advance the prosecution of this application, the Examiner is invited to contact the undersigned by telephone at the Examiner's convenience.

In view of the foregoing remarks, Applicants respectfully submit that the present application is in condition for allowance and a notice to that effect is respectfully requested.

Respectfully submitted,

Stufflet et al.

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Enclosure (1)